

A Sustainable Spacecraft Component Database Solution, Phase I

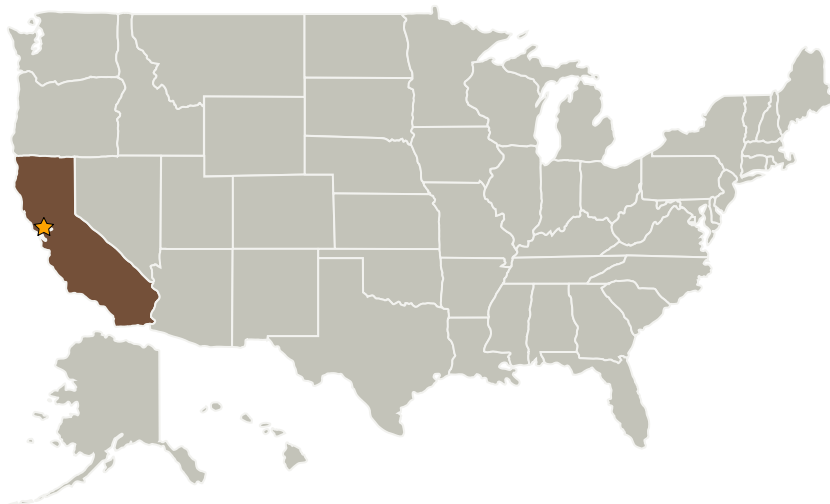
Completed Technology Project (2008 - 2008)



Project Introduction

Numerous spacecraft component databases have been developed to support NASA, DoD, and contractor design centers and design tools. Despite the clear utility of component databases for improving and accelerating the spacecraft design process, they are observably uneconomic for individual organizations to build and maintain -- otherwise there would be several that were actively maintained and growing. The problem is not the challenge of architecting the database or identifying the component types and data elements. In fact, many organizations have succeeded in developing excellent solutions that have languished due to the cost of populating and maintaining them. Microcosm is focused on developing an economically viable solution to creating a sustainable component database. The approach is four-fold: 1. Reduce the cost of gathering/maintaining data by leveraging web-based data with automated gathering and monitoring tools; 2. Drive sufficient value to component suppliers such that they are motivated to supply and maintain their own data; 3. Supply data to a broad range of users and organizations; and 4. Enable value-added contributions from users via venues like wikis, discussion rooms, links to relevant websites. This solution will stand on its own as a viable business, and provide increasing value to customers (suppliers and users) over time.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission
Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation
Research/Small Business Tech
Transfer

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Organizations Performing Work	Role	Type	Location
★ Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Microcosm, Inc.	Supporting Organization	Industry Women-Owned Small Business (WOSB)	Hawthorne, California

Primary U.S. Work Locations

California

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Paul Graven

Technology Areas

Primary:

- TX10 Autonomous Systems
 - ↳ TX10.4 Engineering and Integrity
 - ↳ TX10.4.5 Architecture and Design of Autonomous Systems